

Rabbit Anti-IGF1R antibody

SL0680R

Product Name	IGF1R
Chinese Name	胰岛素样生长因子 1 受体抗体
Alias	Insulin-like growth factor 1 receptor; CD221; CD221 antigen; IGF1 Receptor; IGF 1 receptor; IGF 1R; IGF I receptor; IGfIRC; Insulin like growth factor 1 receptor precursor; JTK13; MGC142170; MGC142172; Insulin-like growth factor 1 receptor beta chain; IGF 1 receptor; IGF-1R; IGF I receptor; IGF-I receptor; IGF-IR; IGF1R_HUMAN.
Research Area	Tumour immunology Signal transduction Apoptosis Growth factors and hormones transcriptional regulatory factor
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human (predicted:Mouse,Rat,Chicken,Dog)
Applications	Flow-Cyt=1µg/Test not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	150kDa
Cellular localization	The cell membrane
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human IGF-1 receptor beta chain: 1102-1204/1204 <Cytoplasmic>
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

PubMed

[PubMed](#)

This receptor binds insulin-like growth factor with a high affinity. It has tyrosine kinase activity. The insulin-like growth factor I receptor plays a critical role in transformation events. Cleavage of the precursor generates alpha and beta subunits. It is highly overexpressed in most malignant tissues where it functions as an anti-apoptotic agent by enhancing cell survival. [provided by RefSeq, Jul 2008].

Function:

This receptor binds insulin-like growth factor 1 (IGF1) with a high affinity and IGF2 with a lower affinity. It has a tyrosine-protein kinase activity, which is necessary for the activation of the IGF1-stimulated downstream signaling cascade. When present in a hybrid receptor with INSR, binds IGF1.

PubMed:12138094 shows that hybrid receptors composed of IGF1R and INSR isoform Long are activated with a high affinity by IGF1, with low affinity by IGF2 and not significantly activated by insulin, and that hybrid receptors composed of IGF1R and INSR isoform Short are activated by IGF1, IGF2 and insulin. In contrast, PubMed:16831875 shows that hybrid receptors composed of IGF1R and INSR isoform Long and hybrid receptors composed of IGF1R and INSR isoform Short have similar binding characteristics, both bind IGF1 and have a low affinity for insulin.

Product Detail

Subunit:

Tetramer of 2 alpha and 2 beta chains linked by disulfide bonds. The alpha chains contribute to the formation of the ligand-binding domain, while the beta chain carries the kinase domain. Interacts with PIK3R1 and with the PTB/PID domains of IRS1 and SHC1 in vitro when autophosphorylated on tyrosine residues. Forms a hybrid receptor with INSR, the hybrid is a tetramer consisting of 1 alpha chain and 1 beta chain of INSR and 1 alpha chain and 1 beta chain of IGF1R. Interacts with ARRB1 and ARRB2.

Subcellular Location:

Membrane; Single-pass type I membrane protein.

Tissue Specificity:

Found as a hybrid receptor with INSR in muscle, heart, kidney, adipose tissue, skeletal muscle, hepatoma, fibroblasts, spleen and placenta (at protein level). Expressed in a variety of tissues.

Post-translational modifications:

The cytoplasmic domain of the beta subunit is autophosphorylated on tyrosine residues in response to insulin-like growth factor I (IGF I). Phosphorylation of Tyr-980 is required for IRS1- and SHC1-binding.

DISEASE:

Defects in IGF1R may be a cause in some cases of resistance to insulin-like growth factor 1 (IGF1 resistance) [MIM:270450]. IGF1 resistance is a growth deficiency disorder characterized by intrauterine growth retardation and poor postnatal growth accompanied with increased plasma IGF1.

Similarity:

Belongs to the protein kinase superfamily. Tyr protein kinase family. Insulin receptor subfamily. Contains 3 fibronectin type-III domains. Contains 1 protein kinase domain.

SWISS:

P08069

Gene ID:

3480

Database links:

[Entrez Gene: 3480](#) Human

[Entrez Gene: 16001](#) Mouse

[Entrez Gene: 25718](#) Rat

[Omim: 147370](#) Human

[SwissProt: P08069](#) Human

[SwissProt: Q60751](#) Mouse

[SwissProt: P24062](#) Rat

[Unigene: 643120](#) Human

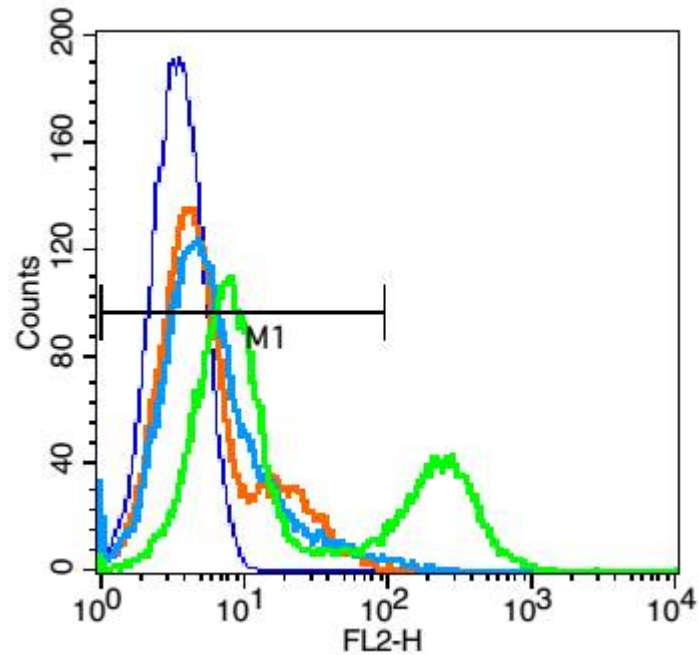
[Unigene: 714012](#) Human

[Unigene: 275742](#) Mouse

[Unigene: 10957](#) Rat

IGF1 receptor 是胚胎生长发育的重要影响因子，IGF-IR 参与 Apoptosis

并与 TumourCell differentiation、增殖密切相关。



Product Picture

Blank control: Jurkat cells(blue).

Primary Antibody:Rabbit Anti-IGF1R antibody(SL0680R), Dilution: 1 μ g in 100 μ L 1X PBS containing 0.5% BSA;

Isotype Control Antibody: Rabbit IgG(orange), used under the same conditions);

Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA.

Protocol

The cells were fixed with 2% paraformaldehyde (10 min) . Primary antibody (SL0680R, 1 μ g /1x10⁶ cells) were incubated for 30 min on the ice, followed by 1 X PBS containing 0.5% BSA + 1 0% goat serum (15

min) to block non-specific protein-protein interactions. Then the Goat Anti-rabbit IgG/PE antibody was added into the blocking buffer mentioned above to react with the primary antibody at 1/200 dilution for 30 min on ice. Acquisition of 20,000 events was performed.